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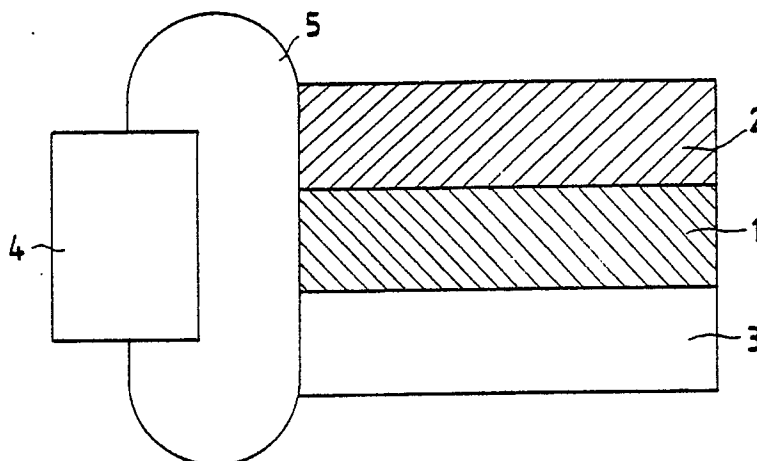
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54 **Solid-state sensor for determining the concentration of a gas with a solid-state reference electrode.**

57 A sensor in completely solid state for determining the concentration of a gas, in particular of hydrogen, is disclosed, which is essentially constituted by electrodes separated by a protonic conductor in

the solid state, in which the solid-state reference electrode is constituted by a metal hydride, or a metal-alloy hydride.

Fig.1





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Y	US-A-4 664 757 (J.J. ZUPANCIC) * Abstract; column 11, lines 1-24 * ---	1,2,6	G 01 N 27/56
Y	SENSORS AND ACTUATORS, vol. 9, no. 1, February 1986, pages 1-7; A.J. POLAK et al.: "Applications of novel proton-conducting polymers to hydrogen sensing" * Pages 1-2 * ---	1,6	
Y	ANALYTICAL CHEMISTRY SYMPOSIA SERIES, vol. 17, "Chemical sensors", PROCEEDINGS OF THE INTERNATIONAL MEETING ON CHEMICAL SENSORS, Fukuoka, 19th - 22nd September 1983, pages 239-244; G. VELASCO et al.: "New protonic materials for hydrogen sensors" * Pages 239-240 * ---	1,4,5	
A	GB-A-2 128 751 (NATIONAL RESEARCH DEVELOPMENT) * Page 1, lines 1-38 * ---	1,4	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A	DE-A-2 802 518 (NATIONAL RESEARCH DEVELOPMENT) * Claims 1,10 * ---	1	G 01 N 27/56
A	EP-A-0 231 766 (FIGARO ENGINEERING) * Abstract * ---	1,4	
A	1985 INTERNATIONAL CONFERENCE ON SOLID-STATE AND ACTUATORS, 1985, pages 340-343; N. YAMAZOE et al.: "Development of proton conductors gas sensor" * Page 340 * -----	1,4	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 07-09-1990	Examiner CALLEWAERT-HAEZEBROUCK H
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	